

01



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,292	04/19/2004	Yoshihito Itou	Q80956	9994

23373 7590 03/27/2006
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

LA, ANH V

ART UNIT PAPER NUMBER

2612

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/826,292	Applicant(s) ITOU ET AL	
	Examiner Anh V. La	Art Unit 2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4,5,7,8 and 10-12 is/are allowed.
- 6) ☒ Claim(s) 3,6 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The claims are objected to because there many typographical error.

In claim 1, line 8, the phrase "said output voltage" should be changed to - - said output voltage value--.

In claim 1, line 10, the phrase "a current value" should be changed to - - the current value--.

In claim 1, line 10, the phrase "an output voltage value" should be changed to - - the output voltage value--.

In claim 10, line 10, the phrase "a current value" should be changed to - - the current value--.

In claim 10, line 10, the phrase "an output voltage value" should be changed to - - the output voltage value--.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyota (US 6,838,803) in view of Radomski (US 4,959,577).

Regarding claim 3, Kiyota discloses a brush abrasion detector of a vehicle generator comprising a brush, a revolution speed detection circuit 4, 5 for detecting the number of revolutions of the generator, and a brush abrasion determination circuit 26

Art Unit: 2636

determining an abrasion state of the brush based on the number of revolutions detected by the revolution speed detection circuit (abstract, column 4, lines 28-37, col. 9, lines 5-29). Kiyota does not clearly disclose the brush that is located being slidably press-fitted to a slip ring, which is provided at an end portion of a field winding of a generator, and supplies an excitation current from a battery to the field winding. Radomski teaches the use of a brush 44, 46, that is located being slidably press-fitted to a slip ring 40, 42, which is provided at an end portion of a field winding 36 of a generator 10, and supplies an excitation current from a battery to the field winding. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the brush that is located being slidably press-fitted to a slip ring, which is provided at an end portion of a field winding of a generator, and supplies an excitation current from a battery to the field winding to the detector of Kiyota as taught by Radomski for the purpose of effectively determining the abrasion state of the brush.

Regarding claims 6 and 9, Kiyota as modified by Radomski discloses all the claimed subject matter as set forth above in the rejection of claim 3, but still does not disclose a large contact resistance being implanted in the brush at a portion of the limit of abrasion (claim 6) and a brush abrasion limit portion (claim 9). Radomski further discloses a large contact resistance being implanted in the brush at a portion of the limit of abrasion (figure 1) and a brush abrasion limit portion 48. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include a large contact resistance being implanted in the brush at a portion of the limit of

Art Unit: 2636

abrasion and a brush abrasion limit portion to the detector of Kiyota as taught by Radomski for the purpose of effectively determining the abrasion state of the brush.

4. Claims 1, 2, 4, 5, 7, 8, and 10-12 are allowed.

Answers to Remarks

5. Applicant's arguments filed on December 28, 2005 have been fully considered.

Applicant's arguments with respect to claims 3, 6, and 9 have been considered but are moot in view of the new ground(s) of rejection.

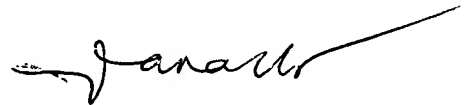
6. **THIS ACTION IS MADE NON-FINAL.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh V. La whose telephone number is (571) 272-2970. The examiner can normally be reached on Mon-Fri from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2636

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ANH V. LA
PRIMARY EXAMINER

Anh V La
Primary Examiner
Art Unit 2636

AI
March 10, 2006